

CleanCam Quick Start Guide

This Quick Start Guide provides instruction related to:

- 1) Software Installation
- 2) Image Adjustment
- 3) Hardware Set-up
- 4) Pedal Configuration

Software Installation: New Driver (CleanCam 10xx and 25xx)

- 1. Create a user account on the ClearView website and request access to software downloads.
- Run the installer .exe and select the installation appropriate for your product generation (CC10xx or CC25xx
 - a. For CC25xx series cameras, connect the camera to the computer via a USB 3.0 port during installation to ensure all necessary drivers are downloaded.
 - b. See the "Image adjustment" section for focusing instructions.
- 3. Work with your Client Engineering team to ensure that redirection of devices is enabled.
 - a. <u>Note:</u> depending on your Hyperspace virtualization strategy, your Client Engineering team may require details about the camera (such as VID and/or PID) in order to enable redirection specifically for this model of camera.
 - i. If you use Citrix, the camera VID and PID can be found via the Citrix session details: Citrix Session > Right Click > Connection Center > Devices.
 - 1. Depending on your access in Citrix, you may not be able to see the camera details. Consult with your Client Engineering team for more details.
- 4. Launch Hyperspace and log into the Dispense Preparation activity and open an order with an existing dispense. Confirm that the "Take Picture" button is available.
 - a. Select "Take Picture".
 - i. Selecting the "preview" option in Epic-Dispense Prep will launch a window in which you can preview the camera image and capture it via manual selection of the TWAIN driver capture icon.
 - ii. Once the camera is focused on the workspace, we recommend de-selecting "preview" by default in order to streamline the workflow. The "preview" window functions do not correspond to hot-keys programmed into the pedal but these can be updated according to your preference. See: Pedal Configuration.



b. If the CleanCam driver is not selected by Hyperspace by default, you may have other TWAIN drivers installed. In order for Hyperspace to select this device by default, uninstall other TWAIN drivers or consult with your Epic representative for other options.

Image Adjustment: New Driver (CleanCam 10xx and 25xx)

CleanCam uses a fixed-focus lens, designed to focus at a single distance. During initial deployment (or if the distance from the work-surface changes) adjust the focus on the lens. To adjust the focus:

- 1. Launch the Epic Dispense Prep module and open the CleanCam drive by selecting "preview" and "take picture.
- 2. Select "Automatic Image Adjustment" to optimize the brightness and color for the environment in which the camera is deployed.



- b. During the first few seconds of initial set-up, the automatic image adjustment may change the image substantially.
- 3. Place a vial/syringe/ampule in the intended field of view
- 4. Remove the protective lens tube by rotating it counter-clockwise
- 5. Rotate the focus adjustment on the lens (the very end of the lens) in small increments clockwise and counterclockwise until the image is in focus.
 - The entire lens should not rotate, just the end of the lens. If the entire lens rotates, the lens has been unscrewed from the camera body and will not maintain a reliable focus. Additionally, if the lens is unscrewed, you may damage the device when you attempt to reattach the lens tube.
- 6. To adjust the aperture, loosen the set-screw closest to the camera body and rotate until the right depth of field or image brightness is achieved.<u>It is not recommended to adjust the aperture</u>. It is better to allow the CleanCam driver to adjust the brightness.

Hardware Set-Up

a.

- 1. CleanCam-xx16 (Hood Mount):
 - 1. If using ClearView's mount:
 - i. Attach the mounting arm to the magnet base using the provided hardware.
 - ii. Install the Hood Mount by attaching the magnet base to a magnetic surface on the hood body.
 - It is recommended to attach a ClearView-branded vinyl sticker to the underside of the magnet mount before attaching the magnet to a hood. This will help prevent metal-metal contact between the hood and magnet base. Use caution when installing or repositioning the magnet base. Any force not parallel to the surface of the hood may cause the edge of the base to damage the hood. ClearView is not responsible for



any damage to property arising from improper installation or repositioning of the mount.

- a. <u>Removal of the mount:</u> The magnet mount is a semi-permanent attachment. Depending on the magnetic properties of your hood, it may take substantial force to remove the mount from your hood. To avoid damage to the hood and mount, remove the mount by applying force directly to the magnet base (not the mounting arm) in a direction parallel to the hood surface until the magnet reaches an edge of the hood and gently slide the magnet off the hood.
- iii. Loosen the universal ball joint adapter (point a.) and screw point c. into the $\frac{1}{2}$ -20 attachment point on the top of the CleanCam.
 - 1. Point b. should not be removed from the assembly as it provides an easy method to tighten the screw attachment into the CleanCam and its scored surface will prevent the connection from becoming loose.



- iv. Position the mounting arm such that the CleanCam views the workspace from as vertical of a vantage point as possible.
 - 1. To capture the clearest images, it is recommended to position products horizontally on the work surface.
- v. Once the appropriate mounting position and angle is achieved, tighten the universal ball joint.
- 2. If using your own mount:
 - i. Install your mount according to manufacturer instructions and attach the mount to the $\frac{1}{2}$ -20 attachment point on top of the CleanCam.
 - ii. Position the mount such that the CleanCam views the workspace from as vertical of a vantage point as possible.
 - 1. To capture the most detailed images, it is recommended to position products horizontally on the work surface.
- 3. Connect the CleanCam to the local computer via a USB3.0 port.



- 4. Focus the CleanCam as outlined in the "Image Adjustment" section.
- 5. CleanCam-xx16 will provide the best quality images when mounted between 28-33 inches from the work surface.
- 2. CleanCam-xx06 (TableTop Mount):
 - 1. Attach the CleanCam to the TableTop mount and place the assembly on the work surface.
 - Position the assembly such that the end of the lens of the CleanCam is approximately 11-12 inches from the work surface. CleanCam-xx06 will provide the best quality images when mounted at this distance.
 - i. Note: the CleanCam should be oriented such that the ¼"-20 attachment point is considered the "top" of the camera for purposes of correct image orientation. Leverage the flexibility of the mounting arm to achieve this orientation.
 - 3. Focus the CleanCam, as outlined in the "Image Adjustment" section.
- 3. Connect the CleanCam to the local computer via a USB3.0 port.
- 4. (If applicable) Connect the foot pedal to a USB port on the computer.

Pedal Configuration (if applicable):

Each pedal is programmed to perform multiple actions, depending on the step in the workflow

3PEDALWD

Left Pedal

- Take Picture
- Keep and Take Another Picture
- Yes (attribute dose to X person)

Center Pedal

- Keep Picture
- Submit for Mid-Prep Review
- No (attribute dose to X person)
- Right Pedal
 - Discard Picture
 - Submit for Final Review

FP30A-19-CNR

Left Pedal

- Take Picture
- **Center Pedal**
 - Keep Picture
 - Submit for Mid-Prep Review
- 2. Right Pedal
 - Discard Picture



- Submit for Final Review
- CNR pre-check and final check

Though the pedals are pre-programmed, you may customize the pedal actions. To do so:

- 1. Press and hold the left pedal.
- 2. Plug the USB cord into a USB port on the computer.
- 3. When the light on the pedal starts blinking, release the left pedal.
- 4. Once the computer recognizes the pedal, open the drive and run the Windows programming application.
- 5. Set each pedal to the desired action or combination of actions.
- 6. Save the configuration.
- 7. To use the pedal, unplug the USB connection and plug it back in without pressing any pedals.

Pedals from ClearView are programmed to perform actions in Epic, not operate buttons in the CleanCam Driver. The following hotkeys are default programmed in the TWAIN driver and can be added to your pedal programming if desired.

Take Picture and Close: spacebar

